Kansas Medical Assistance Program

Drug Utilization Review Bulletin

Heritage Information Systems, Inc.

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The Kansas Medicaid Preferred Drug List (PDL)

Kansas Medicaid began implementation of a preferred drug list in December 2002. The preferred drug list was developed with the assistance of an independent clinical advisory committee of practicing physicians and pharmacists. This committee reviews clinical evidence and determines if drugs within specific therapeutic classes are equivalent in terms of safety, efficacy and clinical outcomes. Kansas Medicaid has joined with several other states to participate in the Drug Effectiveness Review Project through the Center for Evidence Based Policy. This project allows our PDL Advisory Committee to have access to the best evidence-based, clinical information on the relative effectiveness of drugs within drug classes. Making PDL decisions based upon solid clinical data provides all beneficiaries with the best value and the highest quality of care.

The current PDL includes twenty classes of drugs*:

ACE Inhibitors
Angiotensin Receptor Blockers (ARBs)
Beta-Blockers
Calcium Channel Blockers, Dihydropyridines
Calcium Channel Blockers, Nondihydropyridines
H2 Antagonists
Proton Pump Inhibitors
HMG CoA Reductase Inhibitors ("Statins")
Non-Sedating Antihistamines
Intranasal Corticosteroids
Non-Steroidal Anti-Inflammatory Drugs (NSAIDS)
Triptans
Serotonin 5-HT3 Antagonist Antiemetics
Beta-Blockers
Meglitinides
Biguanides
Alpha-Glucosidase Inhibitors
Thiazolidinediones ("Glitazones")
Insulins (Delivery Systems)
Muscle Relaxants

* Drug classes will generally be reviewed on a yearly basis.

Additional information and a complete listing of all drugs on the PDL may be found at:
http://www.srskansas.org/hcp/medicalpolicy/pharmacy/

Kansas Medicaid Preferred Drug List Committee Members:

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Kansas Medicaid Pharmacy Help Desk (1-866-405-5200)

To assist Kansas Medicaid providers, the Kansas Medical Assistance Program has implemented a Help Desk for addressing questions pertaining to the PDL, Five Brand limit, and other pharmacy service questions. Support is available from 7AM to 7PM, seven days a week, by calling 1-866-405-5200.

Reducing the Risk of Diabetic Complications

Janelle V. Sheen, Pharm.D., Margaret Cavanaugh, R.Ph.

Overview

Diabetes Mellitus affects nearly 16 million Americans, yet only two-thirds of patients have been diagnosed.[1] While type 1 diabetes accounts for up to 10% of all cases of diabetes, type 1 and type 2 diabetes both result in chronic complications, packing a significant economic burden close to 98 billion dollars annually (direct and indirect costs). Although multiple treatments are available for type 1 and type 2 diabetes, epidemiologic data indicates the incidence of obesity in children with type 2 diabetes is increasing such that 8-45% of children with newly diagnosed diabetes have nonimmune-mediated disease.[2]

While type 1 diabetes is initiated genetically, type 2 diabetes is a heterogenous disorder with multiple risk factors. Table 1 lists risk factors for the development of type 2 diabetes. Early in 2004, The American Diabetes Association introduced pre-diabetes as a new risk factor for the development of the disease.[3] Patients with impaired fasting glucose (100-125mg/dl) and/or impaired glucose tolerance (2-h postload glucose 140-199mg/dl) are referred to as having pre-diabetes. Because diabetes treatment lacks completely effective therapies, primary prevention is an attractive and effective approach, with emphasis on identification of modifiable risk factors, in reducing diabetic complications.

Table 1. Risk Factors for Type 2 Diabetes[1]

1.	Parents of siblings with diabetes
2.	Obesity (>20% over ideal body weight or BMI $\geq$ 27 kg/m^2)
3.	Habitual physical inactivity
4.	Prevalence increases with age and in women
5.	Previously identified impaired glucose intolerance or impaired fasting glucose
6.	Hypertension ($\geq$ 140/90 mm Hg)
7.	HDL cholesterol $\leq$ 35 mg/dl and/or triglycerides $\geq$ 250 mg/dl
8.	History of gestational diabetes or delivery of a baby > 9 pounds
9.	Polycystic ovary disease

Evidence Based Medicine

Improving glycemic control is known to slow the onset and progression of microvascular complications.[4, 5] The Diabetes Control and Complications Trial Research Group (DCCT) found that intensive (3-4 injections) therapy versus conventional (1-2 injections) therapy with insulin in type 1 diabetes reduces the risks of retinopathy, nephropathy, and neuropathy by 35%-90% compared to conventional treatment. The UK Prospective Diabetes Study (UKPDS) in type 2 diabetics was also integral in defining the importance of tight glycemic and blood pressure control. The study showed a 12% lower risk, in patients treated with intensive therapy, for any diabetes-related endpoint, a 10% lower risk for any diabetes-related death, and a 6% lower risk for all-cause mortality, compared to conventional therapy.

What is Intensive Therapy?

Intensive therapy is defined as a comprehensive program of diabetes care that includes, as two of its components, frequent self-monitoring of blood glucose levels and more complex and sophisticated regimens for maintaining near-normal glucose levels. Intensive therapy for type 1 diabetes likely includes multiple insulin injections daily or insulin infusion therapy, while intensive therapy for type 2 diabetes starts with diet, exercise and education, and includes initiation of one or more oral hypoglycemic agents to reach goal HbA1c. Intensive therapy in both type 1 and type 2 diabetes slows the onset and progression of diabetes complications.

Updated Standards of Care

Recognizing risk factors and monitoring for important disease markers is important in the management of diabetes and related complications. The American Diabetes Association and the Institute for Clinical Symptoms Improvement continuously update recommendations for standards of care, based on outcomes data from clinical trials, for patients with diabetes.[3, 6] The following are 2004 clinical practice recommendations for diabetes.

- HbA1c: <7%
  Note: More stringent goals can be considered in individual patients based on analysis suggesting there is no lower limit of HbA1c at which further lowering does not reduce the risk of complications, however this may increase the risk of hypoglycemia.
- Preprandial glucose: 90-130mg/dl
- Postprandial glucose: <180mg/dl
- Blood Pressure: <130/80mmHg (based on ALLHAT)
  Note: Treatment with an ACE-Inhibitor or Angiotensin Receptor Blocker is recommended
- LDL Cholesterol: <100mg/dl
- Triglycerides: <150mg/dl
- HDL: >40mg/dl
- Total Cholesterol: Age >40 with total chol. ≥ 135mg/dl = "Statin" Treatment
- Anti-platelet Therapy: Aspirin therapy is recommended as primary and secondary therapy at a dose of 75-162mg/day. Plavix can be considered in patients with aspirin intolerance.
- Pharmacological Therapy: Diagnosis→ Therapeutic lifestyle changes→ Monotherapy with oral agents→ Combination therapy with oral agents→ Combination therapy with oral plus insulin therapy.

Diabetes Statistics for Kansas Medicaid

Nationally, in 2002, antidiabetic medications accounted for 208 prescriptions per 1000 Medicaid members.[2] According to data specific to Kansas, the state retail pharmacy utilization index for antidiabetic agents was 0.86 / 0.90 ($ Index / Rx Index). The retail pharmacy utilization index compares the average retail dollars per state resident for a specific therapy class to the national average, by dollars and by prescription utilization. The closer a state's index is to 1.00, the closer the state's utilization is to the national average. In comparison, in 2002, West Virginia led retail spending for antidiabetic agents, at $37.42 per resident (utilization index 1.58/1.52).

Recently, Heritage Information Systems, Inc. performed a clinical analysis on Kansas Medical Assistance Program patients with diabetes mellitus. Table 2 highlights three diabetes indicators: underuse of ace-inhibitors (ACEI) or angiotensin receptor blockers (ARBs), underuse of "statin" therapy, and compliance with oral antidiabetic therapy.

Table 2: Selected Diabetes Indicators

Clinical Indicator	# Patients Identified
Underuse: Angiotensin modulating agent with history of diabetes and hypertension	718
Underuse: Antilipemic therapy	4,920
Noncompliance with oral antidiabetic regimen	422

References:

1. Oki JC, Isley WL. Diabetes Mellitus. In: Pharmacotherapy. A Pathophysiologic Approach, Fifth Edition. Dipiro JT, Talbert RL, Yee GC, et al. Eds. McGraw-Hill. New York. 2002. Pg. 1335-58.
2. Novartis Pharmacy Benefit Report. Facts and Figures. 2003 Edition. East Hanover, NJ: Novartis Pharmaceuticals, 2003.
3. American Diabetes Association. Summary of Revisions for the 2004 Clinical Practice Recommendations. Diabetes Care 2004;27:Supplement 1-142. Available at http://care.diabetesjournals.org. Accessed March 2004.
4. The writing team for the Diabetes control and Complications Trial / Epidemiology of Diabetes Interventions and complications Research Group. Effect of intensive therapy on the microvascular complications of type 1 diabetes mellitus. JAMA May 2002;287 (19):2563-69.
5. UK Prospective Diabetes Study (UKPDS) Group. Intensive blood-glucose control with sulfonylureas or insulin compared with conventional treatment and risk complications in patients with type 2 diabetes (UKPDS 33). Lancet 1998;352:837-53.
6. Management of Type 2 Diabetes Mellitus. Institute for Clinical Systems Improvement Health Care Guideline. Eighth Edition. November 2003. Available at www.icsi.org. Accessed March 2004.

Top 25 Drug Products by Amount Paid

The top 25 drug products by order of highest paid amount in claims paid during the first quarter of 2004 are listed below in table 3. The paid amount of $30,891,230 for these drug products accounted for 45.5% of the total $67,930,658 paid for all drug benefits. The total claim count for these products was 216,661, or 19.3% of the total claim count of 1,123,412.

The top 25 drug products by order of highest paid amounts contain 12 mental health drugs, 4 anticonvulsant products, 2 proton pump inhibitors, 2 "statin" products, and 2 narcotic opiate products. The average paid amount for the listed products was $142.58, which is significantly higher than the program average of $60.48 per claim.

TABLE 3

	Drug Class/Drug	Paid	Claims	Paid/Rx
1.	OLANZAPINE	$3,928,187	12,694	$309.45
2.	RISPERIDONE PRODUCTS	$2,826,209	15,959	$177.09
3.	QUETIAPINE	$2,548,103	13,653	$186.63
4.	LANSOPRAZOLE	$2,539,634	19,360	$131.18
5.	DIVALPROEX	$1,517,724	13,814	$109.87
6.	ARIPIPRAZOLE	$1,393,267	4,475	$311.34
7.	GABAPENTIN	$1,392,435	11,322	$122.98
8.	SERTRALINE	$1,358,232	16,014	$84.82
9.	PANTOPRAZOLE	$1,166,420	11,512	$101.32
10.	FENTANYL PRODUCTS	$1,023,052	4,030	$253.86
11.	OXYCODONE	$1,007,785	4,905	$205.46
12.	ZIPRASIDONE	$946,128	4,177	$226.51
13.	VENLAFAXINE	$944,068	8,134	$116.06
14.	ATORVASTATIN	$893,711	11,313	$79.00
15.	SIMVASTATIN	$788,305	6,886	$114.48
16.	TOPIRAMATE	$783,348	4,072	$192.37
17.	PALIVIZUMAB	$738,445	655	$1,127.40
18.	CLOPIDOGREL	$683,562	6,098	$112.10
19.	SALMETEROL/FLUTICASONE INH	$662,575	5,087	$130.25
20.	LAMOTRIGINE	$649,926	3,139	$207.05
21.	ESCITALOPRAM	$643,147	10,289	$62.51
22.	BUPROPION	$618,880	6,547	$94.53
23.	CLOZAPINE	$615,324	5,861	$104.99
24.	METHYLPHENIDATE PRODUCTS	$614,594	8,928	$68.84
25.	PAROXETINE	$608,169	7,737	$78.61

We welcome the opportunity to discuss with you any comments or concerns you may have about this Newsletter. Please call our office at 1-800-745-1946 with any questions or concerns.